Stolzenberg Eric

From: Stolzenberg Eric

Sent: Friday, February 05, 2016 9:12 AM

To: 'Spencer Schilling'
Cc: Dennis O'Meara ; P. E. Jeffrey W. (Jeff) Stettler

Subject: RE: El Faro files - Feb 2

Thank you Spencer.

Noted on points one and two.

I have cc'd the other parties present at the interviews to provide the two information points as well.

Eric

From: Spencer Schilling

Sent: Thursday, February 04, 2016 5:43 PM

To: Stolzenberg Eric

Subject: RE: El Faro files - Feb 2

Eric,

Glad all the files downloaded OK. If you'd like anything else, let me know.

As a follow-up to this data and the interview I'd like to note two items:

- Because of the particular interest in the scuttle locations near midship, I had our designer/drafter review his
 work on the FC&SP and examine the difference in the location of the raised manhole/scuttle in/around fr 141152 from the GA. He has no documentation supporting the location he showed on the FC&SP (such as notes
 from the ship check) and cannot recollect why it differs from the GA and previous Northern Lights safety plan. I
 can only recommend that the FC&SP not be considered a definitive reflection of the location of this scuttle.
- 2. In the interview I was asked what damage stability regulations might have applied to the Northern Lights/El Faro other than the SOLAS probabilistic regulations apparently used in 1993. Before these regulations there were no applicable IMO damage survivability standards for dry cargo ships using a standard B Type freeboard. I believe I noted this during the interview. On reflection, I realize I failed to note that in the U.S. the standard known as "MARAD Design Letter No. 3" could have been applicable to the Northern Lights and its sisterships if they were built under a US Gov't subsidy program. This is a one compartment standard. But as we noted during the interview, HEC was not involved with the damage stability approvals for these ships and cannot state definitively what rules were applied at what time and for what reason.

BRgds,

Spencer

Spencer Schilling Herbert Engineering Corp.